

## Chapter 27

# A Systematic Public Capital Management and Budgeting Process

**Arwiphawee Srithongrung**

*University of Illinois at Springfield, USA*

**Juita-Elena (Wie) Yusuf**

 <https://orcid.org/0000-0003-3599-1417>

*Old Dominion University, USA*

**Kenneth A. Kriz**

*University of Illinois at Springfield, USA*

### ABSTRACT

*This chapter introduces the readers to a public capital management and budgeting process and its role in generating public infrastructure networks. The main purpose of the chapter is to describe the normative public capital management and budgeting practices that are recommended by the public finance literature. These normative practices are segregated into four main components: (1) long-term capital planning, (2) capital budgeting and financial management, (3) capital project execution and project management, and (4) infrastructure maintenance. Given that the literature recommends specific practices to maximize efficiency in public capital spending, the four main components, combined, are referred to as the systematic capital management and budgeting process. The systematic process discussed in detail in this chapter is used as a common framework for each of the 12 country case studies in describing their respective public capital management and budgeting practices.*

## **INTRODUCTION**

Public infrastructure systems, such as roads, highways, government buildings, sewerage and water systems, school facilities, police and fire stations, and recreational parks, generate economic and social benefits. At the national level, public infrastructure such as highway networks, the electrical grid, telephone lines and towers, water and sewage systems, and fiber optic lines increase national productivity through two pathways. In the first pathway, national public infrastructure subsidizes private production costs through better services with lower transportation, utility, and communication costs. Through the second pathway, national public infrastructure systems can attract more foreign investment. At the subnational level (i.e., state, county, city, districts), public infrastructure adds valuable amenities into a community, thus increasing housing values and expanding local property tax bases (Yinger, Bloom, Börsch-Supan, Ladd, 1988). At this level, public infrastructure also plays an important role in cushioning local economies, for example, by attracting new businesses and employment into a community (Srithongrung & Kriz, 2012). Public infrastructure plays a critical role in promoting economic growth and development (Munnell, 1992) and in fulfilling basic public health and safety needs (Pagano & Perry, 2008). In the USA, increased interstate highway spending significantly increased economic growth through increased earnings in the manufacturing, retail trade, services, and utilities sectors (Chandra and Thompson (2000)). At the subnational level, many empirical studies have found that public capital spending enhances local economic growth given that public infrastructure, such as roads, bridges, and government buildings, is another input in the local production process (Holtz-Eakin & Schwartz, 1995; Lobo & Rantisi, 1999; Storm & Feiock, 1999; Moomaw, Mullen & Williams, 2002). Further, U.S. states adopting systematic capital budgeting and management practices saw increased public capital stocks and faster economic growth rates in the short run (Srithongrung, 2008).

Given the high value, long lifespan, and tangible nature of capital assets, comprehensive and systematic planning, management, and maintenance efforts are very important (Pagano & Perry, 2008; Steiss, 2005). Coupled with the importance of public infrastructure for national and subnational economies, public capital management and budgeting processes should be carefully and systematically practiced so that a government can meet the public infrastructure needs of society while maintaining strong financial condition. Theoretically, the normative literature suggests that careful and systematic public capital management and budgeting should include four main components: (1) long-term capital planning, (2) capital budgeting and financial management, (3) project execution, and (4) infrastructure maintenance. This systematic approach to capital planning and management introduces efficiency and effectiveness to public investment (Srithongrung, 2008; Wigfall & Lynch, 2003). “Infrastructure management that is based on comprehensive capital planning, effective project oversight, and adequate asset preservation can benefit the economy and society” (Jimenez & Pagano, 2012, p. 125).

## **THE NORMATIVE FRAMEWORK FOR A SYSTEMATIC CAPITAL MANAGEMENT AND BUDGETING PROCESS**

Providing facilities and services for the public good is one of the principle functions of government (Steiss, 2005). Public capital budgeting is defined as a “process or system of administrative procedures which relate long-term capital improvement program with the methods which will be used to pay for those improvements and provides for the implementation of these long-term financial and physical plans”

20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/a-systematic-public-capital-management-and-budgeting-process/260441](http://www.igi-global.com/chapter/a-systematic-public-capital-management-and-budgeting-process/260441)

## Related Content

---

### Underrepresentation of Latina Faculty in Academia

Raquel Sapeg (2021). *Research Anthology on Challenges for Women in Leadership Roles* (pp. 481-505).

[www.irma-international.org/chapter/underrepresentation-of-latina-faculty-in-academia/278667](http://www.irma-international.org/chapter/underrepresentation-of-latina-faculty-in-academia/278667)

### A Learning Outcome Inspired Survey Instrument for Assessing the Quality of Continuous Improvement Cycle

Abdallah Namoun, Ahmad Taleb, Mohammed Al-Shargabiand Mohamed Benaïda (2021). *Research Anthology on Preparing School Administrators to Lead Quality Education Programs* (pp. 702-724).

[www.irma-international.org/chapter/a-learning-outcome-inspired-survey-instrument-for-assessing-the-quality-of-continuous-improvement-cycle/260446](http://www.irma-international.org/chapter/a-learning-outcome-inspired-survey-instrument-for-assessing-the-quality-of-continuous-improvement-cycle/260446)

### Management Support Systems Type Business Intelligence (BI) and Factors Determining Their Implementation

Jerzy Kisielnickiand Anna Maria Misiak (2021). *Encyclopedia of Organizational Knowledge, Administration, and Technology* (pp. 1059-1074).

[www.irma-international.org/chapter/management-support-systems-type-business-intelligence-bi-and-factors-determining-their-implementation/263600](http://www.irma-international.org/chapter/management-support-systems-type-business-intelligence-bi-and-factors-determining-their-implementation/263600)

### A Typology of Supports for First Generation College Students in the U.S.: The Role of Leadership and Collaboration

Brooke Midkiffand Leslie Grinage (2017). *Handbook of Research on Administration, Policy, and Leadership in Higher Education* (pp. 348-376).

[www.irma-international.org/chapter/a-typology-of-supports-for-first-generation-college-students-in-the-us/167380](http://www.irma-international.org/chapter/a-typology-of-supports-for-first-generation-college-students-in-the-us/167380)

### The Banking Sector During COVID-19: The Case of Bahrain Islamic Bank

Yomna Abdulla (2021). *Global Perspectives on Change Management and Leadership in the Post-COVID-19 Era* (pp. 274-284).

[www.irma-international.org/chapter/the-banking-sector-during-covid-19/274209](http://www.irma-international.org/chapter/the-banking-sector-during-covid-19/274209)